DOCUMENT RESUME

ED 141 948 EA 009 761

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TITLE Research and Development: A Perspective of Educational Improvement for Competency-Based Approaches.
INSTITUTION Utah Univ., Salt Lake City. Dept. of Educational Administration.
PUB DATE Jul 77
NOTE 6p.; Not available in hard copy due to light print of original
JOURNAL CIT CCBC Notebook; v6 n4 pp3-7 Jul 1977

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS *Educational Administration; *Educational Development; *Educational Improvement; Educational Needs; *Educational Research; Higher Education; *Performance Based Education; Program Development; Research and Development Centers; Universities

ABSTRACT

The field of educational administration is particularly hampered in coordinating the areas of research and development. The politics, economics, and social conditions surrounding administrative practice and its study in the university setting have not been conducive to development work. Research and development directed toward educational administration and intended to produce educational improvement are almost nonexistent. However, development work using competency-based approaches offers a significant and viable means to educational improvement. A research and development approach utilizing competency-based concepts could be productive in the identification of competencies for various roles, in role analysis, in performance measurement, in program evaluation, and in other important areas. (Author)

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RESEARCH AND DEVELOPMENT: A PERSPECTIVE OF EDUCATIONAL IMPROVEMENT FOR COMPETENCY-BASED APPROACHES

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(Note: In a discussion with Bob Larson about the NCPEA Interest Group on Program Development I was asked to prepare a brief paper to supplement discussions for the August meeting. I regret that a Department of State assignment to Southeast Asia may preclude my presentation of the paper and participation in discussions. I hope that this paper will serve the Group and indicate my belief in the critical importance of development work and my optimism for the future of it.)

Initial thoughts that guided preparation for this paper were: first, that development work relating to competency-based programs in administration and supervision is grounded in established principles and concepts of curriculum, evaluation and R & D; second, that the domain of activity specifically oriented to educational improvement is hampered by confusion about the "fit" of development work (R & D) in relation to the domains of research and of practice; and, finally, that the first two conditions have profound implications for the development work being done in competency-based approaches. This paper deals with these concerns in an attempt to establish a perspective for competency-based approaches to educational improvement.

Educational improvement and the means to attain it have not been identified either by researchers (who generally and mistakenly feel that research contributes directly to improved practice) or practitioners (who generally and mistakenly feel that improvement is a "hands-on" process of maximizing cost/benefit ratios, retention percentages, and achievement scores.). Educational improvement takes place in a deliberate fashion when established knowledge is employed in the systematic production of useful systems, methods, materials, or devices that convert constructs (individualization, program planning, modular instruction) into tested constructions. This is the domain of development (R & D) and it fills a gap between research (established knowledge) and practice.

The field of educational administration is particularly hampered in R & D--although it is a highly sophisticated domain of activity and aspects of it are reasonably well defined in some areas of education. The politics, economics, and social conditions surrounding administrative practice and its study have not been conducive to development work in the university setting. A variety of reasons could be generated and speculated about, but this approach leads to justification of supposed failures rather than as challenges to be overcome. The point is that R & D directed toward educational administration intended to produce educational improvement is almost non-existent and that development work using competency-based approaches offers a significant and viable means to educational improvement.

The distinctions between characteristics of research and of development might serve a useful purpose to indicate a fundamental difficulty in establishing development work as a legitimate and normal function of departments of educational administration in the university setting:

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Distinguishing Characteristics	Research	Development
Basis	Abstract inquiry	Knowledge
Product	Refinement of concepts, problems	Technology: methods, systems, techniques
Product	Reports	Tested products
Time line	Insensitive	Sensitive
Boundary limits	Variables	System
Producer	Individual	Team
Control	Peer-critics	Users
Management	Loose, indulgent	Tight, controlling

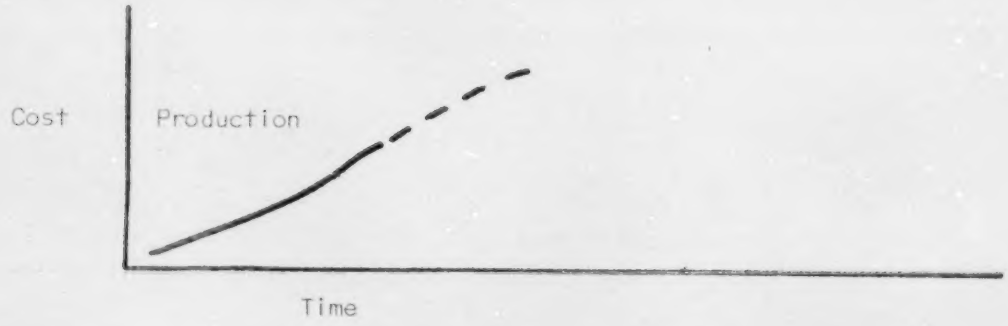
The distinctions may warrant examination and analysis but this is not undertaken here for reasons of brevity. Hopefully, the terms used will communicate that research is a separable but related endeavor from development. The argument is that by training, experience, and predisposition professors of educational administration are biased toward research and away from development.

The competency-based approach to program development requires an R & D effort. It has firm conceptual roots, employs established curriculum and evaluation concepts and principles, and seeks outcomes in methods and systems by way of tested products in terms of user performance. In short, an examination of the entire movement represented by Project ROME, the CFK Task Force and the ILM Modules, the NASSP Project (Where Will They Find It?), The University of Texas SEST Project, Arizona State's Project on Competencies in Administration of Community Education, San Antonio's ESP Competency Evaluation Project, and Columbia University's Program in Administrative Preparation, to name a few which are well documented in the literature point to the fact that these are R & D efforts of a high order.

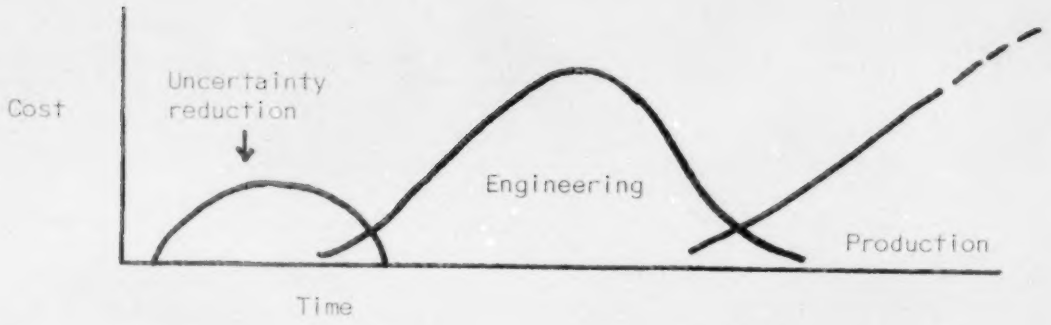
The mind-set which most hampers legitimate R & D and in the long run discredits research per se can easily be illustrated. In the Journald of Research and Development (Winter, 1976) devoted to clinical supervision, Tom Sergiovanni writes, "The intellectual capital inherent in clinical supervision is in my view more important than its work flow as articulated into steps, strategies, and procedures." He follows this sentence with a footnote. . ."The third concern is with the bandwagon effect which too often accompanies good ideas in education. I refer to those who would hook on to clinical supervision with whatever they are presently infatuated. Competency-based training and performance objectives are examples worth mentioning. . . ." This represents the mind-set of those afflicted with the research syndrome--that "intellectual capital" is developed in a compartmentalized set of procedures unrelated to development and detached from practice. The article which follows in the same Journal issue, and which I prepared, documents the soundness of the conceptual and developmental efforts in competency-based approaches.

The following charts, taken from T. K. Glennan Jr.'s work in Strategies for R & D, indicate the relationships between: 1) uncertainty reduction, 2) engineering, and 3) production in R & D as a factor of time and cost:

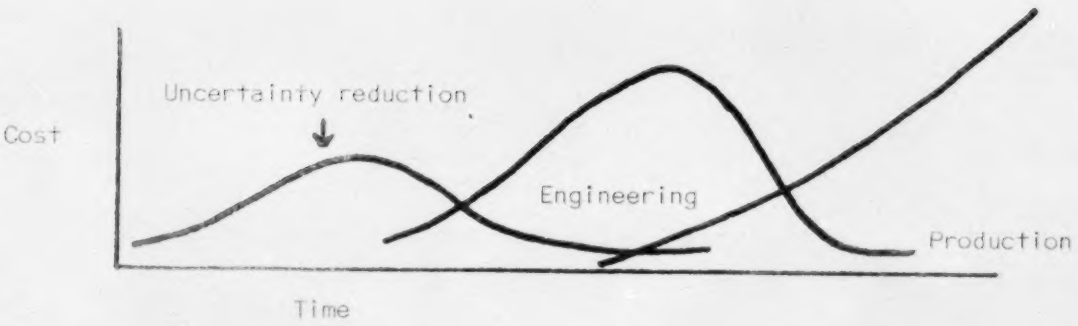
Consumer view of development



Classical view of distribution of development efforts



Reasonable overlap of efforts



Glennan's view of what is reasonable in R & D indicates an effort at uncertainty reduction which is an overlap of the domains of research and of development. Each can be mutually supporting and each should enhance and contribute to the other.

There are many areas in administration needing an R & D approach and the areas of program and personnel development are rich in problems and in need by the field. Lines of development work and the needs of the field are sufficiently compatible to permit productive work using competency-based concepts. The lines of development work involving competency-based concepts and which are compatible with the needs of the field include:

1. Competency identification in various roles and the specification and verification of indicators of performance.

2. Role analysis and role clarification, including role conflict identification and resolution.

3. Performance measurement and strategies of performance assessment.

4. Program planning for pre-service and in-service preparation involving need assessment in competency terms.

5. Competency-based training materials and the testing of learning formats.

6. Examination of correlates of training and performance as one means of program evaluation.

7. Use of competency-based specification for certification and re-certification purposes.

8. Examination of curriculum concepts and the design and testing of competency-based programs in terms of them: individualization, self-assessment and self-pacing, modular instruction, field based learning, etc.

9. Evaluation strategies for programs a la Stake, Knolski, Stufflebeam, Cook and others,

Each of the above represents areas where uncertainty reduction is badly needed as it relates to the present knowledge base. Careful examination of what is known could point to possibilities for product development which would have needed applications in the field and which, in turn, would lead to both research and further development work that could contribute to educational improvement far more than research or practice can do alone.

Some projects in R & D have been mentioned. The CCBC Notebook has over the past few years contained reports of these efforts and many more. An annotated bibliography recently prepared for the Notebook contains several hundred listings for those who have an interest in competency based R & D work. In addition, there is now a substantial and growing interest from colleagues of other countries who wish to know about and contribute to R & D efforts of this kind: Canada, Australia, Germany, Turkey, Ireland are a few in which projects are underway or about to begin.

In R & D work, specifically as it relates to competency-based approaches, there are no critical experiments as in the basic sciences, no single dramatic break-through as in technology, and little useful progress to be expected from classical modes of research. Those who are motivated to participate in R & D activities will need to devote themselves to long periods of demanding work in

the analysis of content and process in critical phases of administration and supervision and seek to clarify and refine them, invent and test procedures both for instruction and practice, and search for evidence of effects. Successful work results in testable products of many kinds--methods, systems, materials, devices, etc.

R & D methodologies and competency-based approaches offer opportunities for sound educational improvement.

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